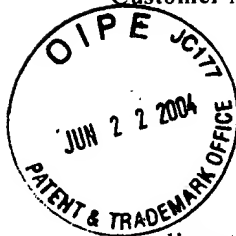


Docket No. 87427.1040
Customer No. 30734

PATENT

AF/3677
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES
APPEAL BRIEF FOR THE APPELLANTS

Ex parte Quigley et al.

Applicant: Quigley et al.)

Serial No. 09/848,413)

Art Unit: 3677

Filed: May 4, 2001)

Examiner: T. Y. Ho

For: DOOR LATCHING DEVICE AND METHOD)

Mail Stop Appeal Brief-Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith are three copies (3) of an Appeal Brief and a check for the official fee for the Appeal Brief, in the amount of Three Hundred and Thirty Dollars (\$330.00). The brief is due June 22, 2004. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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For: DOOR LATCHING DEVICE AND METHOD

BRIEF ON APPEAL

I. INTRODUCTION

This is an appeal from the final Office Action January 26, 2004. A Notice of Appeal was filed on April 22, 2004.

II. REAL PARTY IN INTEREST

The Real Party in Interest in the present application is General Signal Technology Corporation by way of an assignment.

III. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to the appellants, appellants' representatives or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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IV. STATUS OF THE CLAIMS

Claims 1-10 and 12-20 are pending in the application. Claim 1 is an independent claim upon which claims 2-10 depend. Claim 12 is an independent claim upon which claims 13-15 depend. Claim 16 is an independent claim upon which claims 17-20 depend. Claims 1-2, 5-10, 12-13, 15-16 and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457) and further in view of case law. Claims 3-4, 14 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457), and further in view of Hull (U.S. Patent No. 3,981,054), and further in view of case law. The claims on appeal, Claims 1-10 and 12-20, are set forth in the attached Appendix 1.

V. STATUS OF THE AMENDMENTS

An Amendment submitted on January 10, 2003, was entered amending claims 1, 15 and 16. In response to this amendment, a final Office Action dated March 24, 2004, was issued finally rejecting claims 12, 13 and 15 under 35 U.S.C. §102(e) as being unpatentable over Demarco (U.S. Patent No. 6,109,668); claims 1, 2, 5, 7-11, 16, and 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Demarco (U.S. Patent No. 6,109,668). Claims 3, 4, 6, 14 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Demarco (U.S. Patent No. 6,109,668) in view of Smith (U.S. Patent No. 6,302,098). An Amendment was submitted on June 26, 2003, amending claims 1, 12 and 16. A Request for Continued Examination was also filed June 26, 2003.

A non-final Office Action dated September 3, 2003, was issued rejecting claims 12-13 and 15 under 35 U.S.C. §102(e) as being unpatentable over Babka (U.S. Patent No. 6,161,881);

claims 16-18 and 20 under 35 U.S.C. §102(b) as being unpatentable over Hull (U.S. Patent No. 3,981,054); claims 1, 2, 5-7, and 10-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Babka (U.S. Patent No. 6,161,881) in view of case law; claims 3-4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Babka (U.S. Patent No. 6,161,881) in view of case law, and further in view of Hull (U.S. Patent No. 3,981,054); claims 8-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Babka (U.S. Patent No. 6,161,881) in view of case law and further in view of Dreifert (U.S. Patent No. 5,318,333); claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Babka (U.S. Patent No. 6,161,881) in view of Hull (U.S. Patent No. 3,981,054); claim 19 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hull (U.S. Patent No. 3,981,054) in view of Douglas (U.S. Patent No. 4,500,122); and claim 19 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hull (U.S. Patent No. 3,981,054) in view of Dreifert (U.S. Patent No. 5,318,333).

The Amendment submitted on December 2, 2003, was entered canceling claim 11 and amending claims 1, 12 and 16. In response to this amendment, a final Office Action dated January 26, 2004, was issued finally rejecting claims 1-2, 5-10, 12-13, 15-16, and 18-20 under 35 U.S.C. §103(a) as being unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457) and further in view of case law; claims 3-4, 14 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457), and further in view of Hull (U.S. Patent No. 3,981,054), and further in view of case law. A Notice of Appeal was filed April 22, 2004.

VI. SUMMARY OF THE INVENTION1. Independent Claim 1

Independent claim 1 includes an apparatus for latching a door (FIG. 1, reference number 2) against a frame (FIG. 1, reference number 4). The apparatus includes a door pin (FIG. 3, reference number 18), a handle (FIG. 3, reference number 28), and a latch bar (FIG. 4, reference number 12). The door pin extends from the door. The handle lever (FIG. 4, reference number 26) is rotatably mounted to the door and includes a handle pin (FIG. 4, reference number 30) extending therefrom. The latch bar is mounted to the frame and configured for reciprocating travel relative to the frame (Shown in FIG. 5 and 6, reference letters A and D respectively). The latch bar completely defines a first slot (FIG. 4, reference number 34) configured to reciprocate substantially linearly and a cam surface (FIG. 4, reference number 16) adapted to receive the door pin. The latch bar further completely defines a second slot (FIG. 5, reference number 24) adapted to receive the handle pin. In this regard, the latch bar and handle have a first unlatched position (Shown in FIG. 4) where the handle pin enters the second slot and the door pin enters the first slot, and a second latched position (Shown in FIG. 6) where the handle pin contacts the second slot and the cam surface bears against the door pin. In this manner, rotation of the handle from the first position to the second position causes the handle pin to bear against the second slot, moving the latch bar in a latching direction from the first position to the second position, so that the first slot on the cam surface bears against the door pin and urges the door in a closing direction.

2. Dependent claims 2-10

Dependent claim 2 is dependent upon claim 1 and further defines the movement from the first position to the second position, where the handle rotates past a top dead center position (FIG. 8, reference item TDC) so a reaction force retains the latch bar and handle in the second position.

Dependent claim 3 is dependent upon claim 1 and further defines the latching device where a compressible gasket (FIG. 5, reference number 22) is provided between the door and the frame.

Dependent claim 4 is dependent upon claim 1 and further defines the latching device where the gasket is compressed by a predetermined amount when the latch bar and handle are in the second position.

Dependent claim 5 is dependent upon claim 1 and further defines the latching device where the door is hinged to the frame at one side of the door, and the handle is mounted to the door at an opposite side of the door from the hinged side.

Dependent claim 6 is dependent upon claim 1 and further defines the latching device where the door is an oven door.

Dependent claim 7 is dependent upon claim 1 and further defines the latching device where the handle rotates about a first axis, and has a handle portion on one side of the first axis, and the handle pin is on the other side of the axis, and the second slot is a substantially straight slot extending substantially perpendicular to the direction of the reciprocating travel of the latch bar.

Dependent claim 8 is dependent upon claim 1 and further defines the latching device where the latch bar is biased towards the first position.

Dependent claim 9 is dependent upon claim 1 and further defines the latching device where the handle is biased towards the first position.

Dependent claim 10 is dependent upon claim 1 and further defines the latching device when the latch bar and handle are in the first position, the door pin is unobstructed by the first slot so that the door is unlatched.

2. Independent Claim 12

Independent claim 12 includes an apparatus for latching a door (FIG. 1, reference number 2) against a frame (FIG. 1, reference number 4), comprising a first engagement means extending from the door (FIG. 3, reference number 18), a second engagement means (FIG. 4, reference number 12) mounted to the frame including a slot (FIG. 4, reference number 34) configured to move linearly and cooperating with first engagement means (Shown in FIG. 5 and 6, reference letters A and D respectively), first and second engagement means movable between a first position where the door is unlatched (Shown in FIG. 4) and a second position where first and second engagement means latches the door closed (Shown in FIG. 6), and actuating means mounted to the door for actuating the second engagement means to move between the first and second positions, the actuating means including a rotating handle (FIG. 4, reference number 28) having a handle pin (FIG. 4, reference number 30) extending therefrom that contacts a slot (FIG. 4, reference number 24) movable with the second engagement means to move the second engagement means from the first to the second position when the handle is rotated.

Dependent claim 13 is dependent upon claim 12 and further defines the handle rotating past a top dead center position so that a reaction force retains second an engagement means in the second position.

Dependent claim 14 is dependent upon claim 12 and further defines a compressible gasket (FIG. 5, reference number 22) provided between the door and the frame.

Dependent claim 15 is dependent upon claim 12 and further defines the handle rotating about a first axis, and has a handle portion on one side of the first axis, and the handle pin is on the other side of the axis, and said slot is a substantially straight slot extending perpendicular to the direction of reciprocating travel of said latch bar.

3. Independent Claim 16

Independent claim 16 includes a method for latching a door (FIG. 1, reference number 2) against a frame (FIG. 1, reference number 4) comprising inserting a door pin (FIG. 4, reference number 18) mounted to the door into a first slot (FIG. 4, reference number 16) completely defined by a latch bar (FIG. 4, reference number 12) mounted to the frame, and inserting a handle pin (FIG. 4, reference number 30) mounted to a handle (FIG. 4, reference number 28) into a second slot (FIG. 5, reference number 24) on the latch bar, wherein the handle is mounted to the door, and further rotating the handle in a first direction (Shown in FIG. 5, reference letter C) so that the door pin urges the latch bar in a first direction (Shown in FIG. 5 reference letter A) so that the first slot moves substantially linearly and cammingly contacts the door pin to urge the door into a latched position (Shown in FIG. 6).

Dependent claim 17 is dependent upon claim 16 and further defines a compressible gasket (FIG. 5, reference number 22) provided between the door and the frame.

Dependent claim 18 is dependent upon claim 16 and further defines the handle rotating about a first axis, and has a handle portion on one side of the first axis, and the handle pin is on

the other side of the axis, where the second slot is a substantially straight slot extending substantially perpendicular to the direction of reciprocating travel of said latch bar.

Dependent claim 19 is dependent upon claim 16 and further defines the rotation of the handle past a top dead center position so that a reaction force retains the latch bar and handle in the latched position.

Dependent claim 20 is dependent upon claim 16 and further defines rotating the handle in a second direction opposite the first direction so that the door pin engages the latch bar in a second direction so that the first slot releases the door pin.

VII. ISSUE

Whether claims 1-2, 5-10, 12-13, 15-16 and 18-20 are unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457) under 35 U.S.C. §103(a) and further in view of case law.

Whether claims 3-4, 14 and 17 are unpatentable over Dreifert (U.S. Patent No. 5,370,428) in view of Brautigam (U.S. Patent No. 6,230,457), and further in view of Hull (U.S. Patent No. 3,981,054), under 35 U.S.C. §103(a) and further in view of case law.

VIII. GROUPING OF CLAIMS

Claim 1-10 and 12-20 of this patent application stand or fall together, and upon issuance of a patent, will be entitled to a presumption of validity under 35 U.S.C. §282.

IX. APPELLANTS ARGUMENTS

Claims 1-2, 5-10, 12-13, 15-16, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,370,428 to Karl-Heinz Dreifert et al. (the Dreifert document) in view of U.S. Patent No. 6,230,457 to Richard H. Brautigam (the Brautigam document) and further in view of case law. The following is stated in the outstanding Office Action:

Dreifert disclosed a first embodiment for a locking mechanism for a sash 10 in a frame 20, wherein the keeper 12 is mounted on the sash 10, while the latch bar 21, handle 52, and pins 40 are mounted on the frame 20. Dreifert also discloses a second embodiment wherein the positions can be switched (col. 9, ln.9-14), thus placing the pins 40, latch bar 21, and handle 52 on the sash 10 and the keeper 12 on the frame. The second embodiment is being used as the basis for the rejection.

Brautigam discloses a first embodiment for a latching mechanism for a sash 14 in a frame 12, wherein the keeper 24 is fixedly mounted on the sash 14, while the latch bar 20, handle 40, and pins 22 are movably mounted on the frame 12. Brautigam also discloses several further embodiments of the device (col. 5, ln. 34-42). Brautigam discloses placing the latch bar 20 and pins 22 movably mounted on either the sash 14 or frame 12, with the keeper 24 fixedly mounted on the other of the sash 14 or frame 12. Brautigam also discloses that the latch bar 20 may have the pin 22 mounted thereto, and the keeper 24 fixedly mounted on the other of the sash or frame, or the latch bar 20 may have the keeper 24 mounted thereto, with the pin 22 fixedly mounted to the other of the sash or frame (col. 5, ln. 34-42). All are disclosed as equivalent means for the device. The multiple equivalent embodiments covers an embodiment where the latch bar 20 is mounted on the frame 12, with the keeper 24 mounted on the latch bar 20, and the pins 22 fixedly mounted on the sash 14. These explanations should assist in interpreting the rejections below.

Case law recites that inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982). Furthermore, the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

As to claim 1, Dreifert discloses, an apparatus for latching a door 10 against a frame 20 (Dreifert discloses a first embodiment with the device on the frame and the keeper on the door, but also discloses a second embodiment with the device on the door and the keeper on the frame, and second embodiment being the one used in the rejection; col. 9, ln. 5-15), comprising a handle lever 52 mounted on the door (col. 9, ln. 5-15), a latch bar 21 mounted on the door, a door pin 40 fixed on the latch bar, and a keeper 12 having a slot 25 and cam surfaces 16 fixedly mounted on the frame. The difference

between the claim and Dreifert is the claim recites that the latch bar is mounted on the frame, and the latch bar has the keeper mounted thereon (instead of the door pin), with the door pin fixedly mounted on the door, and also that the handle lever has a handle pin while the latch bar has the slot for the handle pin.

Brautigam discloses a window-latching device similar to that of Dreifert. In addition, Brautigam further teaches the equivalence of various mounting configurations for the device (col. 5, ln. 34-44), including that the latch bar can be mounted on the door/sash or the frame (it should be noted that Dreifert already has a handle lever mounted on the door), and that the latch bar can have either a door pin or a keeper mounted thereon, with the other of the door pin or keeper fixedly mounted. It would have been obvious to one of ordinary skill in the art, having the disclosures of Brautigam and Dreifert before him at the time the invention was made, to modify the assembly of Dreifert to have an alternative, but equivalent mounting arrangement, as taught by Brautigam, to obtain the claim device. One would have been motivated to make such a combination because inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

Dreifert discloses that the handle lever 52 has the slot 66 while the latch bar has the pin 70, which is the exact mirror opposite of the relationship claimed. It would have been obvious to one of ordinary skill in the art, having the disclosure of Dreifert before him at the time the invention was made, to reverse the pin/slot relationship between the handle and latch bar of Dreifert to obtain a handle lever having a pin to engage a slot in the latch bar. One would have been motivated to make such a combination because the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

As to claim 2, Dreifert discloses, wherein during movement from the first position to the second position, said handle rotates past a top dead center position (col. 16, ln. 5-15) so a reaction force retains said latch bar and handle in the second position.

As to claim 5, Dreifert discloses, wherein the door is hinged to the frame at one side of the door, and said handle is mounted to the door at an opposite side of the door from the hinged side.

As to claim 6, Dreifert discloses, wherein the door is an oven door. This limitation holds little patentable weight because it is intended use for the device and fails to disclose any structural limitations.

As to claim 7, Dreifert discloses, wherein said handle rotates about a first axis 65, and has a handle portion 50 on one side of the first axis, and said handle pin 70 is on the other side of the axis, and wherein said second slot 66 is substantially straight slot extending substantially perpendicular to the direction of reciprocating travel of said latch bar 21 (see Figure 2).

As to claim 8, Dreifert discloses, wherein said latch bar is biased towards the first position. The latch bar is biased by movement of the handle, and the engagement of the pin 70 with slot 66.

As to claim 9, Dreifert discloses, wherein said handle is biased towards the first position. As to claim 10, Dreifert discloses, wherein said latch bar and said handle are in the first position, said door pin is unobstructed by said first slot so that the door is unlatched.

As to claim 12, Dreifert in view of Brautigam disclose (Dreifert discloses the structures, Brautigam teaches their mounting arrangement relative to one another), an apparatus for latching a door against a frame (Dreifert discloses a first embodiment with the device on the frame and the keeper on the door, but also discloses a second embodiment with the device on the door and the keeper on the frame, and the second embodiment being the one used in the rejection; col. 9, ln. 5-15), comprising: a first engagement means 40 extending from the door 10 (Brautigam teaches the door pin fixed on the door with the keeper mounted on the latch bar); a second engagement means 12, 21, 52 mounted to the frame including a slot 15 configured to move substantially linearly and cooperating with said first engagement means (Brautigam teaches moving the latch bar from the door/sash to the frame and that the keeper is mounted on the reciprocating latch bar), said first and second engagement means movable between a first position where the door is unlatched and a second position where said first and second engagement means latches the door closed; and actuating means 52 mounted to the door (col. 9, ln. 5-15) for actuating the second engagement means to move between the first and second positions, the actuating means including a rotating handle having a handle pin 70 extending therefrom that contacts a slot 66 (reversal of components, namely the pin and slot) movable with the second engagement means to move the second engagement means from the first to the second position when the handle is rotated.

As to claim 13, Dreifert discloses, wherein said handle rotates past a top dead center position so that a reaction force retains said second engagement means in said second position (col. 16, ln. 5-15).

As to claim 15, Dreifert discloses, wherein said handle rotates about a first axis 65, and has a handle portion 50 on one side of the first axis, and said handle pin 70 is on the other side of the axis, and wherein said slot 66 is a substantially straight slot extending perpendicular to the direction of reciprocating travel of said latch bar (see Figure 2).

As to claim 16, Dreifert in view of Brautigam discloses (Dreifert discloses the structures, Brautigam teaches their mounting arrangement relative to one another), a method for latching a door against a frame, comprising the steps of: inserting a door pin 40 mounted to the door (Brautigam teaches to place the latch bar on the frame, but also to mount the keeper on the latch bar, and the door pin opposite the keeper on the frame; col. 5, ln. 34-44) into a first slot 15 completely defined by a latch bar 21 mounted to the frame (Brautigam teaches mounting the latch bar to the frame, and the mounting of the keeper having a slot onto the latch bar); inserting a handle pin 70 mounted to a handle 52 into a second slot 66 on the latch bar 21 (reversal of components teaches that it is obvious to reverse the pin and slot relationship of Dreifert), wherein the handle is mounted to the door (Dreifert already discloses the handle on the door; col. 9, ln. 5-15; Brautigam only teaches that the latch bar is moved onto the frame; col. 5, ln. 34-44); and rotating the handle in a first direction so that the door pin urges the latch bar in a first direction so that the first slot moves substantially linearly and cammingly contacts the door pin to urge the door into a latched position.

As to claim 18, Dreifert discloses, wherein said handle rotates about a first axis 65, and has a handle portion 50 on one side of the first axis, and said handle pin 70 is on the other side of the axis, and wherein said second slot 66 is a substantially straight slot extending substantially perpendicular to the direction of reciprocating travel of said latch bar (see Figure 2).

As to claim 19, Dreifert discloses, wherein the step of rotating the handle further comprises the step of rotating the handle past a top dead center position so that a reaction force retains the latch bar and handle in the latched position (col. 16, ln. 5-15).

As to claim 20, Dreifert discloses, further comprising the steps of: rotating the handle in a second direction opposite the first direction so that the door pin 70 engages the latch bar 21 (reversal of components teaches the reversal of the pin and slot arrangement between 66 and 70 in Dreifert) in a second direction so that the first slot releases the door pin.

Reconsideration and withdrawal of the rejection of claims 1-2, 5-10, 12-13, 15-16, and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over the Dreifert document in view of the Brautigam document and further in view of case law is respectfully requested.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge already available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. See MPEP § 2143.

In rejecting claims under 35 U.S.C. §103, and Examiner bears an initial burden of presenting a *prima facie* case of obviousness. A *prima facie* case of obviousness is established only if the teachings of the prior art would have suggested the claimed subject matter to a person of ordinary skill in the art. If an Examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. See *In re Rijckaert*, 9 F.3d 1531, 28 U.S.P.Q. 2d 1955 (Fed. Cir. 1993). “If examination ... does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to the grant of the patent.” *In re Oetiker*, 977 f.2d 1443, 1445-1446, 24 U.S.P.Q. 2d 1443, 1444 (Fed. Cir. 1992).

A *prima facie* case of obviousness has not been made in that the combination of the Dreifert document, the Brautigam document, and case law fails to teach or suggest the invention as recited in claims 1, 12, and 16 of the present application.

In the Dreifert document, a handle is configured to slide a plate-like member having a slot. This slot, in turn engages a pin on a carrier. In other words, the plate-like member serves to link the handle to the carrier (See Fig. 2 and Column 15 lines 28-30). The carrier further includes slots to engage other pins. The carrier disclosed in the Dreifert document is alternatively referred to as a tie bar in the Brautigam document and a latch bar in the present invention. The issue at hand is the link disclosed in the Dreifert document and also in the Brautigam document. In the present invention, the handle pin (FIG. 4, reference number 30) a part of the handle (FIG. 4, reference number 28) and the second slot (FIG. 5, reference number 24) is a part of the latch bar (FIG. 4, reference number 12). As the handle pin directly engages the second slot, therefore, the latch bar is directly manipulated by the action of the handle. In this manner, the necessity of this link is circumvented in the present invention as expressed in the following claims: claim 1 recites, *inter alia*, a handle lever rotatably mounted to the door and having a handle pin extending therefrom and a latch bar mounted to the frame and configured for reciprocating travel relative to the frame wherein the latch bar includes a slot adapted to receive said handle pin; claim 12 recites, *inter alia*, the actuating means including a rotating handle having a handle pin extending therefrom that contacts a slot movable with the second engagement means; and claim 16 recites, *inter alia*, inserting a handle pin mounted to a handle into a second slot on the latch bar. As such, the need for a link is avoided by the present invention as recited in claims 1, 12, and 16. As the Dreifert document does not teach or suggest any manner of omitting this link, no amount of re-arranging or substitution would yield the

present invention. Therefore, it would not be obvious to one skilled in the art to modify the device disclosed in the Dreifert document.

The Brautigam document does not correct the deficiencies of the Dreifert document. In this regard, the Brautigam document discloses that the handle is rotatably attached to a link. The Brautigam document further discloses that the link may be rotatably attached to a tie bar or that the link may engage the tie bar via a forklike structure of the link that is configured to span either side of a pin on the tie bar. Absent in the Brautigam document is the disclosure of a handle that directly engages the tie bar via a pin. Therefore, neither the Dreifert document nor the Brautigam document taken alone or in combination teach or suggest any manner of omitting this link.

Furthermore, neither the application of In re Fout, 675 F.2d 297, 301 nor In re Japikse, 181 F.2d 1019 correct the deficiencies of the Dreifert document or the Brautigam document taken alone or in combination. In this regard, both In re Fout, 675 F.2d 297, 301 and In re Japikse, 181 F.2d 1019 pertain to the substitution and reversal of components. As both the Dreifert document and the Brautigam document require the use of a linking member in order for the handle to engage the tie bar, no amount of substitution or reversal or components would yield the present invention. At best, the application of In re Fout, 675 F.2d 297, 301 and In re Japikse, 181 F.2d 1019 would yield a latching mechanism in which the linking member or equivalent is disposed upon the frame or door. However, this does not suggest a latch bar that is directly manipulated by the action of a handle. As such, none of the Dreifert document, the Brautigam document, In re Fout, 675 F.2d 297, 301, nor In re Japikse, 181 F.2d 1019 taken alone or in any combination disclose the present invention as recited in claims 1, 12, and 16.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claims 1, 12 and 16 as being anticipated by the Dreifert document in view of the Brautigam document and further in view of cited case law is respectfully requested at least because both the Dreifert document and the Brautigam document and substitution and reversal of the latches disclosed in both the Dreifert document and the Brautigam document fail to disclose: a handle lever rotatably mounted to the door and having a handle pin extending therefrom and a latch bar mounted to the frame and configured for reciprocating travel relative to the frame wherein the latch bar includes a slot adapted to receive said handle pin, as recited, *inter alia*, in claim 1; the actuating means including a rotating handle having a handle pin extending therefrom that contacts a slot movable with the second engagement means, as recited, *inter alia*, in claim 12; or inserting a handle pin mounted to a handle into a second slot on the latch bar, as recited, *inter alia*, in claim 16. Claims 2 and 5-10 depend from independent claim 1. Claims 13 and 15 depend from independent claim 12. Claims 18-20 depend from independent claim 20. Thus, Applicants respectfully request the reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections of claims 1-2, 5-10, 12-13, 15-16, and 18-20.

Rejection of claims 3-4, 14, and 17 under U.S.C. § 103(a) as being unpatentable over the Dreifert document in view of the Brautigam document, and further in view of U.S. Patent 3,981,054 to George S. Hull, and further in view of case law.

Claims 3-4, 14, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dreifert document in view of the Brautigam document, and further in view of U.S. Patent 3,981,054 to George S. Hull (the Hull document), and further in view of case law. The following is stated in the outstanding Office Action:

Claims 3-4, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreifert US5370428 in view of Brautigam US 6230457, and further in view of Hull US3981054, and further in view of case law.

As to claim 3, the difference between the claim and Dreifert is the claim recites, wherein a compressible gasket is provided between the door and the frame. Hull discloses a latching mechanism between a frame and door similar to that of Dreifert. In addition, Hull teaches placing a compressible gasket 35 between the door and frame. It would have been obvious to one of ordinary skill in the art, having the disclosures of Dreifert and Hull before him at the time the invention was made, to modify the door and frame of Dreifert to have a gasket therebetween, as in Hull, to obtain a seal. One would have been motivated to make such a combination, because the ability to create a positive fluid-tight seal would have been achieved, as taught by Hull (col. 2, ln. 45-50).

As to claim 4, Dreifert discloses contact between door and frame when the handle is in the second position (latched position). Hull teaches, wherein said gasket 35 is compressed by a predetermined amount when in the second position.

As to claim 14, Hull discloses, wherein a compressible gasket 35 is provided between the door and the frame.

As to claim 17, Hull discloses, wherein a compressible gasket 35 is provided between the door and the frame.

Claims 3-4 depend from independent claim 1. Claim 14 depends from independent claim 12. Claim 17 depends from independent claim 16. The Applicants respectfully submit that it is believed that claims 1, 12, and 16 are patentable for at least the reasons described herein. Therefore, withdrawal of the 35 U.S.C. § 103(a) rejection to claims 3-4, 14, and 17 as being anticipated by the Dreifert document in view of the Brautigam document, and further in view of the Hull document, and further in view of case law is respectfully requested.

X. CONCLUSION

For all of the above-noted reasons, it is strongly contended that certain, clear and important distinctions exist between the present invention as recited in claims 1-10 and 11-20 and the cited references as provided in the Office Action. It is further contended that these distinctions are more than sufficient to render the claimed invention unobvious to a person of ordinary skill in the art at the time the invention was made.

This final rejection being in error, therefore, it is respectfully requested that this Honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in this case, and indicate the allowability of claims 1-10 and 12-20.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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APPENDIX 1

1. An apparatus for latching a door against a frame, comprising;

a door pin extending from the door;

a handle lever rotatably mounted to the door and having a handle pin extending therefrom;

and

a latch bar mounted to the frame and configured for reciprocating travel relative to the frame, the latch bar completely defining a first slot configured to reciprocate substantially linearly and a cam surface adapted to receive said door pin, and a second slot adapted to receive said handle pin;

wherein said latch bar and handle have a first unlatched position where said handle pin enters said second slot and said door pin enters said first slot, and a second latched position where said handle pin contacts said second slot and said cam surface bears against said door pin, and

wherein rotation of said handle from the first position to the second position causes said handle pin to bear against said second slot, moving said latch bar in a latching direction from the first position to the second position, so that said first slot on said cam surface bears against said door pin and urges the door in a closing direction.

2. An apparatus according to claim 1, wherein during movement from the first position to the second position, said handle rotates past a top dead center position so a reaction force retains said latch bar and handle in the second position.

3. An apparatus according to claim 1, wherein a compressible gasket is provided between the door and the frame.
4. An apparatus according to claim 3, wherein said gasket is compressed by a predetermined amount when said latch bar and handle are in the second position.
5. An apparatus according to claim 1, wherein the door is hinged to the frame at one side of the door, and said handle is mounted to the door at an opposite side of the door from the hinged side.
6. An apparatus according to claim 1, wherein the door is an oven door.
7. An apparatus according to claim 1, wherein said handle rotates about a first axis, and has a handle portion on one side of the first axis, and said handle pin is on the other side of the axis, and wherein said second slot is a substantially straight slot extending substantially perpendicular to the direction of reciprocating travel of said latch bar.
8. An apparatus according to claim 1, wherein said latch bar is biased towards the first position.
9. An apparatus according to claim 1, wherein said handle is biased towards the first position.

10. An apparatus according to claim 1, wherein when said latch bar and said handle are in the first position, said door pin is unobstructed by said first slot so that the door is unlatched.

12. An apparatus for latching a door against a frame, comprising:

a first engagement means extending from the door;

a second engagement means mounted to the frame including a slot configured to move substantially linearly and cooperating with said first engagement means, said first and second engagement means movable between a first position where the door is unlatched and a second position where said first and second engagement means latches the door closed; and

actuating means mounted to the door for actuating the second engagement means to move between the first and second positions, the actuating means including a rotating handle having a handle pin extending therefrom that contacts a slot movable with the second engagement means to move the second engagement means from the first to the second position when the handle is rotated.

13. An apparatus according to claim 12, wherein said handle rotates past a top dead center position so that a reaction force retains said second engagement means in said second position.

14. An apparatus according to claim 12, wherein a compressible gasket is provided between the door and the frame.

15. An apparatus according to claim 12, wherein said handle rotates about a first axis, and has a handle portion on one side of the first axis, and said handle pin is on the other side of the axis, and wherein said slot is a substantially straight slot extending perpendicular to the direction of reciprocating travel of said latch bar.

16. A method for latching a door against a frame, comprising the steps of:

inserting a door pin mounted to the door into a first slot completely defined by a latch bar mounted to the frame;

inserting a handle pin mounted to a handle into a second slot on the latch bar, wherein the handle is mounted to the door; and

rotating the handle in a first direction so that the door pin urges the latch bar in a first direction so that the first slot moves substantially linearly and cammingly contacts the door pin to urge the door into a latched position.

17. A method according to claim 16, wherein a compressible gasket is provided between the door and the frame.

18. A method according to claim 16, wherein said handle rotates about a first axis, and has a handle portion on one side of the first axis, and said handle pin is on the other side of the axis, and wherein said second slot is a substantially straight slot extending substantially perpendicular to the direction of reciprocating travel of said latch bar.

19. A method according to claim 16, wherein the step of rotating the handle further comprises the step of rotating the handle past a top dead center position so that a reaction force retains the latch bar and handle in the latched position.

20. A method according to claim 16, further comprising the steps of:
rotating the handle in a second direction opposite the first direction so that the door pin engages the latch bar in a second direction so that the first slot releases the door pin.